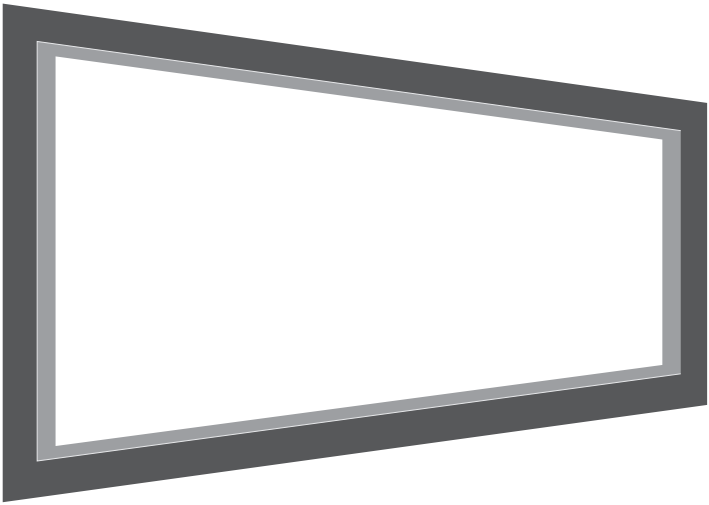
WIDE

World Innovative Display Engineering



USER'S MANUAL

IF1901M (PE19NSX)

TFT LCD Monitor

Table of Contents

Safety Instructions **2**
- Explanation of Graphical Symbols 2
- Precautions 3
- On Safety 3

Your New LCD Monitor **5**
- Feature and Benefits 5
- Unpacking Your Monitor 5

Regulatory Information **6**
- FCC Information 6

Setting up Your LCD Monitor **8**
- Connecting Your LCD Monitor 8

Adjusting Your LCD Monitor **9**
- Warm-up Time 9
- Main User Controls 10
- User Controls 10
- OSD Function Controls 11

Appendix **13**
- Specifications (Monitor Main) 13
- Electrical Specifications 13
- Mechanical Specification and Regulatory 14
- Power Management 15
- Pin Assignments 16
- Troubleshooting 17

Safety Instructions

	CAUTION **RISK OF ELECTRIC SHOCK** **DO NOT OPEN**	
AVERTISSEMENT RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR		
CAUTION:	TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	

LCD MONITOR
54IJ
E217340
WITH RESPECT TO ELECTRIC SHOCK,
FIRE AND MECHANICAL HAZARDS ONLY
IN ACCORDANCE WITH UL60601-10 AND
CAN/CSA C22.2 NO. 601.1,
MEDICAL EQUIPMENT CERTIFIED FOR CANADA

Grounding Reliability Can Only Be Achieved When The Equipment Is Connected To An Equivalent Receptacle Marked "Hospital Only" or "Hospital Grade".

Explanation of Graphical Symbols

	The exclamation point within an equilateral triangle is intended to alert the user to the presence of the important operating and maintenance (servicing) instructions in the literature accompaning the appliance.		The lighting flash with arrowhead symbol, within an equilateral triangle, is intended to alert the be user to the presence of un-insulated "dangerous voltage" within the product's enclosure that of may sufficient magnitude to constitute a risk of electric shock to persons.
	Stand-by switch. Press to turn the monitor on or off (Stand-by mode).		Direct current.

Warning

When the unit is used together with other equipment in the patient area, the equipment shall be connected according to standard UL60601-1 and IEC60601-1.

Classification

- *Protection against electric shock: Class l including AC/DC Adapter.*
- *Applied parts no applied parts.*
- *Protection against harmful ingress of water: ordinary IPXO.*
- *Degree of safety in the presence of flammable anesthetics mixture with air or with oxygen or with nitrous oxide. Not suitable for use in the presence of a flammable anesthetics mixture with air or with oxygen or with nitrous oxide.*
- *Mode of operation: Continuous.*

Safety Instructions

Precautions

On Safety

1. Before connecting the AC power cord to the DC adapter outlet, make sure the voltage designation of the DC adapter corresponds to the local electrical supply.
2. Never insert anything metallic into the cabinet openings of the Liquid Crystal Display (LCD) monitor ; doing so may create the danger of electric shock.
3. To reduce the risk of electric shock, do not remove cover. No user-serviceable parts inside. Only a qualified technician should open the case of the LCD monitor.
4. Never use your LCD monitor if the power cord has been damaged. Do not allow anything to rest on the power cord, and keep the cord away from areas where people can trip over it.
5. Be sure to hold the plug, not the cord, when disconnecting the LCD monitor from an electric socket.
6. Unplug your LCD monitor when it is going to be left unused for an extended period of time.
7. Unplug your LCD monitor from the AC outlet before any service.
8. If your LCD monitor does not operate normally-in particular, if there are any unusual sounds or smells coming from it-unplug it immediately am authorized dealer or service center.

Warning

Do not to touch signal input, signal output or other connectors, and the patient simultaneously.

Warning

External equipment intended for connection to signal input, signal output or other connectors, shall comply with relevant IEC standard (e.g., IEC60950 for IT equipment and IEC60601 series for medical electrical equipment).
In addition, all such combination - system - shall comply with the standard IEC60601-1-1, safety requirements for medical electrical systems. Any person who connects external equipment to signal input, signal output or other connectors has formed at system and is therefore responsible for the system to comply with the requirements of IEC60601-1-1.
If, in doubt, contact qualified technician or your local representative.

Safety Instructions

This TFT LCD Monitor is as accessory intended for use with Medical Equipment to display alpha, numerical and graphical data.

On Installation

1. Openings in the LCD monitor cabinet are provided for ventilation. To prevent overheating, these openings should not be blocked or covered. Also avoid using the LCD monitor on a bed, sofa rug, or other soft surface. Doing so may block the ventilation openings in the bottom of the cabinet. If you put the LCD monitor in a bookcase or some other enclosed space, be sure to provide adequate ventilation.
2. Put your LCD monitor in a location with low humidity and a minimum of dust.
3. Do not expose the LCD monitor to rain or use it near water (in kitchens, near swimming pools, etc.). If the LCD monitor accidentally gets wet, unplug it and contact an authorized dealer immediately. You can clean the LCD monitor with a damp cloth if necessary, but be sure to unplug the LCD monitor first.
4. Place your LCD monitor on a solid surface and treat it carefully.
5. Locate your LCD monitor near an easily accessible AC outlet.
6. High temperature can cause problems. Don't use your LCD monitor in direct sunlight and keep it away from heaters, stoves, fireplaces, and other sources of heat.

On Cleaning

The screen is made of thin glass with a plastic front surface and can be damaged if dropped, hit or scratched. Do not clean the front panel with keton-type materials (e.g., acetone), ethyl alcohol, toluene, ethyl acid, methyl, or chloride-these may damage the panel.

Panel:	Clean with a soft woolen or cotton towel. Use a watery solution or a mild commercial glass cleaning solution.
Cabinet:	Clean with a soft cloth dampened with mild detergent and water. Repeat this with water only and wipe dry with a dry cloth.

On Repacking

Do not throw away the carton and packing materials. They make an ideal container which to transfer the unit. If you have any questions about this unit, contact your authorized dealer.

On Disposal

The lamps inside the display contain mercury which can pollute the environment if disposed carelessly. Please contact our nearest representative office or your local environmental office in case of disposal of this unit.

Contact

WIDE Corporation
456, Gomae-dong, Giheung-gu, Yongin-si, Gyeonggi-do 446-901, Republic of Korea
(TEL:+82-31-218-1600 FAX:+82-31-274-7400) http://www.widecorp.com

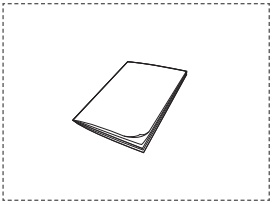
Your New LCD Monitor

Feature and Benefits

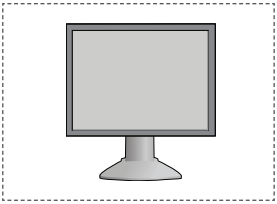
- Dual design - Analog/Digital Interface
  - Clear, Sharp and Crisp Image
- Flexibility - Portrait/Landscape Display
- Superior Spec - High Luminance/High Contrast Ratio
  - Wide Viewing Angle
  - Large Display Area (19″)

Unpacking Your Monitor

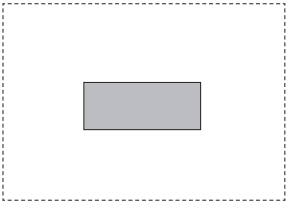
When you unpack the LCD monitor, make sure that you have items below.



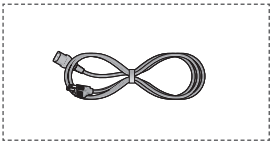
Manual



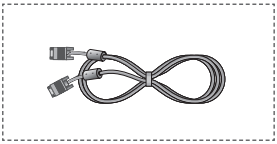
Monitor



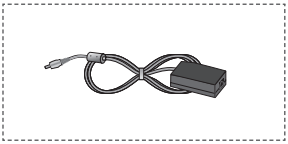
Warranty Card
(not available in all locations)



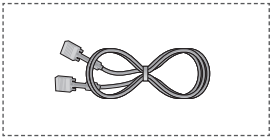
Power Cord



DVI Signal Cable



DC Adapter



15-Pin D-Sub Signal Cable

Regulatory Information

FCC Information

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instrutions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television receptions, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4.

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product.

Regulatory Information

Declaration of conformity for products Marked with FCC Logo

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The party responsible for product compliance:
Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.

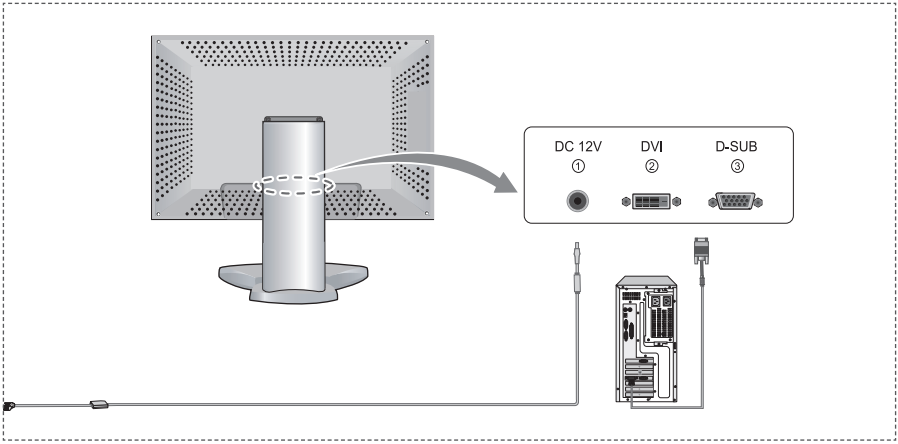
For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6-15P type (tandem blades) plug cap.

IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Setting up Your LCD Monitor

Connecting Your LCD Monitor



1. Power & Signal Input

1) Main Power Input : DC Power Input Jack from the AC to DC Adapter.
2) Digital Video Input : Digital Video Input connector (DVI) from the PC.
3) Analog Video Input : Analog Video Input connector (D-sub 15p) from the PC.

2. Connecting Cable

1) Connect the power cord to the DC adaptor and connect the adaptor plug to the DC12V power connector ① on the back of the monitor.
2) Connect the Digital video signal cable from PC to ②.
3) Connect the 15-pin D-SUB (Analog) signal cable from PC Video connector to the Video port on the back for your monitor.
4) Turn the monitor on, and the turn on the computer.
5) Recommended resolution of IF1901M (PE19NSX) is SXGA, 1280 x 1024.

Adjusting Your LCD Monitor

Warm-up Time

All LCD monitors need time become thermally stable whenever you turn on the monitor after the monitor be turned off for a couple of hours.
Therefore, to achieve more accurate adjustments for parameters, allow the LCD monitor to warm (be on) for at least 20 minutes before making any screen adjustments.

Adjusting Your LCD Monitor

Main User Controls

Your LCD monitor allows you to easily adjust the characteristics of the image being displayed. All of these adjustments are made using the control buttons on the monitor. While you use these buttons to controls, an OSD shows you their change.

User Controls

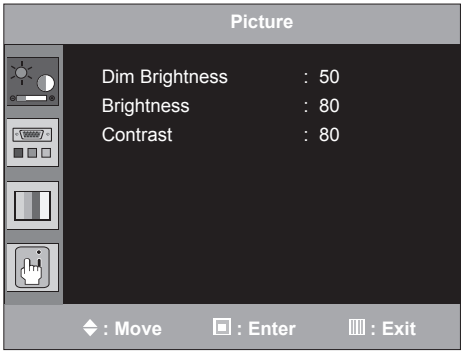
No	Name	Description
1		· Turns ON/OFF the monitor. Press key more then 0.5 sec.
2		· Activates the OSD menu or goes to previous menu.
3		· When the OSD menu is off : Performs “DICOM” function. · When the OSD menu is on: : Selects the function that user wants. · When press key more then 5 sec, toggle OSD lock and unlock.
4		· When the OSD menu is off : Decreases the Dim Brightness function. · When the OSD menu is on : Decreases the adjustment of the selected function : Moves the highlight icon UP to the function that wants.
5		· When the OSD menu is off : Increases the Dim Brightness function. · When the OSD menu is on : Increases the adjustment of the selected function. : Moves the highlight icon DOWN to the function that wants.
6		· Selects the input Signal among Analog RGB, Digital DVI.

Adjusting Your LCD Monitor

OSD Function Controls

Picture

Input : Digital DVI, Analog RGB



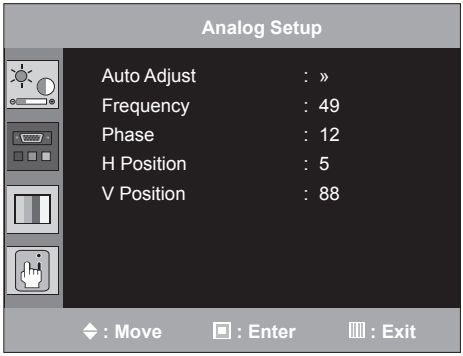
Dim Brightness
Adjusts the brightness of backlight.

Brightness
Adjusts the brightness of PC RGB's brightness.

Contrast
Adjusts the contrast of PC RGB's contrast.

Analog Setup

Input : Analog RGB



Auto Adjust
"Auto adjustment" allows the monitor to self-adjust to the incoming video signal. The values of phase, frequency and position are adjusted automatically.

Frequency
Removes the noises. When frequency value is wrong. The image has vertical lines especially in 1 dot on and off.

Phase
Removes the noises. When phase value is wrong, the image has horizontal lines especially in 1 dot on and off.

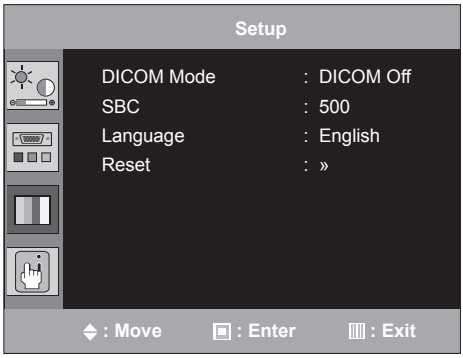
H-Position
Adjusts the horizontal position of the image.

V-Position
Adjusts the vertical position of the image.

Adjusting Your LCD Monitor

Setup

Input : Digital DVI, Analog RGB



DICOM Mode
Changes the DICOM mode. User can select one mode among 5 DICOM modes. (DICOM White, DICOM Blue, TEXT View sRGB, USER)

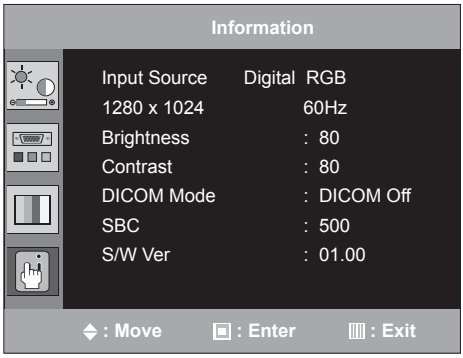
SBC
Changes the SBC (Stable Brightness Control) mode. SBC mode consists of 100, 150, 200, USER, OFF modes.

Language
Changes the OSD language.
English, German, France, Italian, Spanish.

Reset
Reset all values which user can adjust.

Information

Input : Displays current display mode.



Show the current user setting values which includes input source, input signal resolution and timing, brightness value, contrast value, DICOM mode, SBC mode and Firmware version.

Appendix

Specifications (Monitor Main)

Electrical Specifications

Panel Specifications

Panel Specification	
Screen Size	19”
Viewable Image Size	376.32(H) x 301.056(V) mm
Display Resolution	1280 x 1024 pixels
Brightness	1000 cd/m^2
Contrast Ratio	700:1
Viewing Angle	85°/ 85°/ 85°/ 85° (up/down/right/left)
Compatibility (Video Card)	
VGA	640 x 350 70Hz 640 x 400 70Hz 640 x 480 60Hz to 75Hz 720 x 400 70Hz
SVGA	800 x 600 56Hz to 75Hz 1024 x 768 60Hz to 75Hz 1152 x 864 60Hz / 70Hz / 75Hz
SXGA	1280 x 1024 60Hz to 75Hz
Input Specification	
Input Signal	Analog 0.714Vp-p at 75Ω (D-SUB) Digital 8bit
Sync. type	Separate / Composite / Sync on Green - Hsync : 15KHZ ~ 80KHz - Vsync : 50HZ ~ 75Hz - Dot CLK : 130MHz
Signal Cable	15Pin D-Sub / 24Pin DVI-D
Power Specification	
Power Supply	JEC KOREA Corp. , Model : MW116KA1249F02 Input : 100-240Vac, 1.0A, 50/60Hz Output : 12Vdc, 6.67A
Power Consumption	Typical : 60W DPMS : 7W

Appendix

Mechanical Specification and Regulatory

Mechanical Specification	361 x 437 x 77.2 (mm)
Dimension Portrait	(with stand) : 361 x 493 x 200 (mm)
Landscape	(with stand) : 437 x 456 x 200 (mm) (w/o stand) : 361 x 437 x 77.2 (mm)
Weights	(Unpacked) : 8.0kg (Packed) : 13.0kg
Environmental Consideration	
Operating	Temperature : 0°C to 40°C / 32°F to 104°F Humidity : 10% to 80%
Storage	Temperature : –20°C to 60°C / –40°F to 140°F Humidity : 5% to 95%
Regulatory	
Approvals	UL60601-1 / EN60601-1 / IEC601-1 FCC Class B CE VCCI MIC
Features	
User Controls	Power Brightness, Contrast, Clock, Phase, H/V-Position, Auto-Adjust, DICOM mode On/Off, SBC, Input Select, OSD-Language, Factory Reset, Information

• Design and specifications are subject to change without notice.

Appendix

Power Management

This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain period of time. Power Management system operates with a VESA DPMS compliant video card installed in your computer. You use a software utility installed on your computer to set up this feature.

Power Management Modes

State	Normal Operation	DPMS Standby	DPMS Suspend	DPMS Off
Horizontal Sync	Active	Inactive	Active	Inactive
Vertical Sync	Active	Active	Inactive	Inactive
Video	Active	Blanked	Blanked	Blanked
Power Indicator	LED OFF	Blue Flashing (1 sec. interval)	Blue Flashing (1 sec. interval)	Blue Flashing (1 sec. interval)
Power Consumption	60W	Less than 7W	Less than 7W	Less than 7W

This monitor is EPA ENERGY STAR® compliant and NUTEK compliant when used with a computer equipped with VESA DPMS functionality.

For energy conservation, turn your monitor OFF when you are not using it or when leaving it unattended for long periods.

NOTE

This monitor automatically returns to normal operation when horizontal and vertical sync return. This occurs when you move the computer's mouse or press a key on the keyboard.

Appendix

Pin Assignments

DVI-D Connector

Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S Data 2–	13	No Connection
2	T.M.D.S Data 2+	14	5V Power
3	T.M.D.S Data 2 Shield	15	Ground (for 5V)
4	No Connection	16	Hot Plug Detect
5	No Connection	17	T.M.D.S Data 0–
6	DDC Clock	18	T.M.D.S Data 0+
7	DDC Data	19	T.M.D.S Data 0 Shield
8	No Connection	20	No Connection
9	T.M.D.S Data 1–	21	No Connection
10	T.M.D.S Data 1+	22	T.M.D.S Clock Shield
11	T.M.D.S Data 1 Shield	23	T.M.D.S Clock +
12	No Connection	24	T.M.D.S Clock –

15 pin D-sub Connector

Pin	Separate H/V	Composite H/V	Sync-on-green
1	Red	Red	Red
2	Green	Green	Green + H/V Sync
3	Blue	Blue	Blue
4	GND	GND	GND
5	GND (DDC Return)	GND (DDC Return)	GND (DDC Return)
6	GND-Red	GND-Red	GND-Red
7	GND-Green	GND-Green	GND-Green
8	GND-Blue	GND-Blue	GND-Blue
9	No Connection	No Connection	No Used
10	GND-Sync/Self Test	GND-Sync/Self Test	GND-Sync/Self Test
11	GND	GND	GND
12	DDC_SDA	DDC _SDA	DDC _SDA
13	H_Sync	H/V Sync	Not used
14	V_Sync	Not used	Not used
15	DDC_SCL	DDC _SCL	DDC _SCL

Appendix

Troubleshooting

No picture

- Make sure that the power cord is completely connected. (See page 8.)
- Make sure that the LCD monitor and computer power switch are on.
- Check the signal cable connector for bent or pushed-in pins.

The display image is too light or too dark.

- Adjust the Brightness. (See page 11.)

Screen is blank and power indicator light is steady Blue or blinks every 1seconds.

- Make sure that the signal cable is completely connected to the display card or computer.
- Make sure that the display sources or computer are turned on. (See page 8.)
- The monitor is in the power management system.
- Press any key on the keyboard or move the computer's mouse.

Memo

Memo

Memo

http://www.widecorp.com

WIDE Corporation
456, Gomae-dong, Giheung-gu, Yongin-si, Gyeonggi-do, 446-901, Republic of Korea
TEL : +82-31-218-1600 FAX : +82-31-274-7400

WIDE USA Corporation
8 Hammond #114 Irvine,CA 92618, USA
TEL : +1-949-305-9933 FAX : +1-949-305-5452

WIDE EU Corporation
Hullenbergweg 413, 1101 CS Amsterdam Zuidoost, The Netherlands
TEL : +31-20-311-9797 FAX : +31-20-311-9790

WIDE Japan Corporation
3-1-4 Plustaria Bldg 2F, Shin-Yokohama, Kouhoku-ku, Yokohama, Kanagwa 222-8505, Japan
TEL : +81-45-473-7398 FAX : +81-45-473-7330